ENVIRONMENTAL COALITION ON NUCLEAR POWER
JUDITH JOHNSRUD
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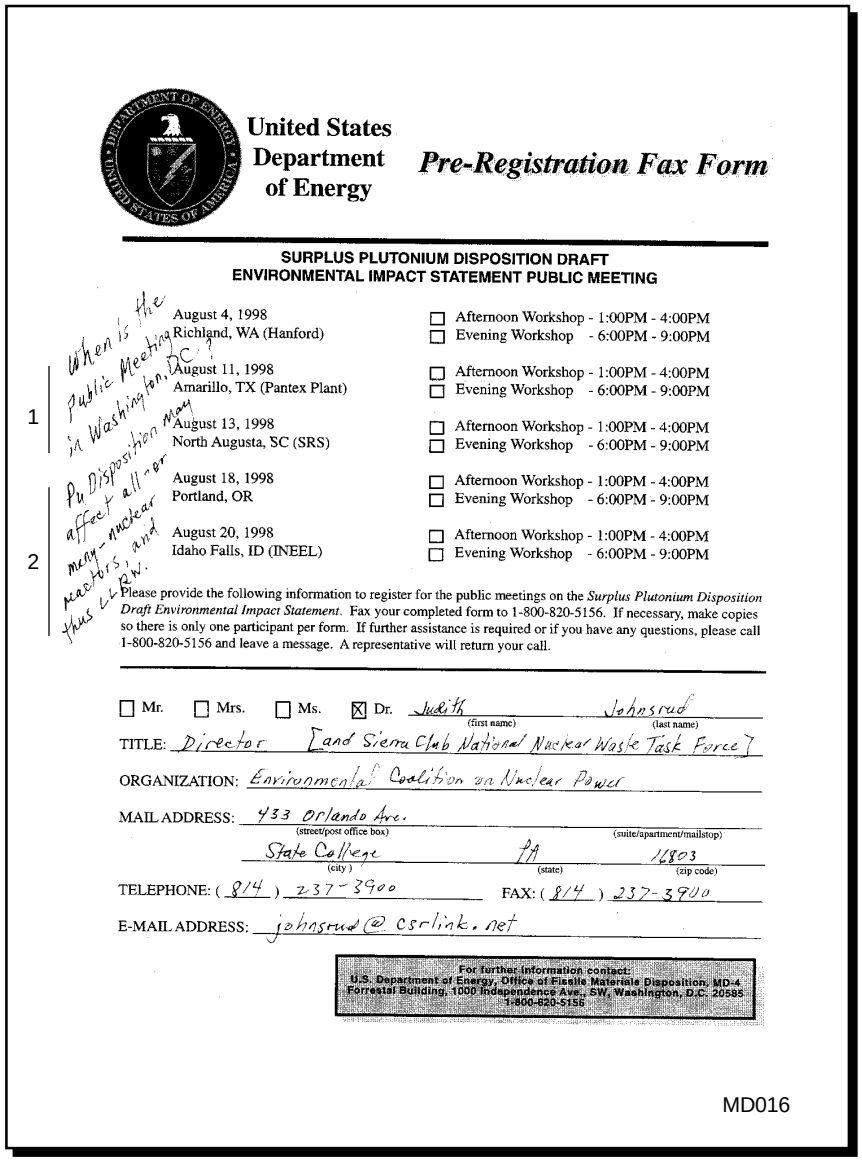

United States Department of Energy

Pre-Registration Fax Form

SURPLUS PLUTONIUM DISPOSITION DRAFT ENVIRONMENTAL IMPACT STATEMENT PUBLIC MEETING

When is the Public Meeting in Washington, DC?

Pu Disposition may affect all or many nuclear reactors and thus LLNL.

1

☐ August 4, 1998 Richland, WA (Hanford) ☐ Afternoon Workshop - 1:00PM - 4:00PM ☐ Evening Workshop - 6:00PM - 9:00PM

☐ August 11, 1998 Amarillo, TX (Pantex Plant) ☐ Afternoon Workshop - 1:00PM - 4:00PM ☐ Evening Workshop - 6:00PM - 9:00PM

☐ August 13, 1998 North Augusta, SC (SRS) ☐ Afternoon Workshop - 1:00PM - 4:00PM ☐ Evening Workshop - 6:00PM - 9:00PM

2

☐ August 18, 1998 Portland, OR ☐ Afternoon Workshop - 1:00PM - 4:00PM ☐ Evening Workshop - 6:00PM - 9:00PM

☐ August 20, 1998 Idaho Falls, ID (INEEL) ☐ Afternoon Workshop - 1:00PM - 4:00PM ☐ Evening Workshop - 6:00PM - 9:00PM

Please provide the following information to register for the public meetings on the *Surplus Plutonium Disposition Draft Environmental Impact Statement*. Fax your completed form to 1-800-820-5156. If necessary, make copies so there is only one participant per form. If further assistance is required or if you have any questions, please call 1-800-820-5156 and leave a message. A representative will return your call.

☐ Mr. ☐ Mrs. ☐ Ms. ☒ Dr. Judith (first name) Johnsrud (last name)

TITLE: Director [and Sierra Club National Nuclear Waste Task Force]

ORGANIZATION: Environmental Coalition on Nuclear Power

MAIL ADDRESS: 433 Orlando Ave. (street/post office box) (suite/apartment/mailstop)

State College (city) PA (state) 16803 (zip code)

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For further information contact:
U.S. Department of Energy, Office of Fissile Materials Disposition, MD-4
Forrestal Building, 1000 Independence Ave., SW, Washington, D.C. 20585
1-800-820-5156

MD016

MD016–1 **General SPD EIS and NEPA Process**

DOE held public hearings near the potentially affected DOE sites and Washington, D.C. Approximately 1,700 copies of the SPD Draft EIS were mailed, and an NOA letter was mailed to an additional 5,500 members of the public. Approximately 1,300 copies of the *Supplement to the SPD Draft EIS* were mailed, and an NOA postcard was mailed to an additional 5,800 members of the public. Several means were available for providing comments: mail, a toll-free telephone and fax line, and the MD Web site. All comments, regardless of how they were submitted, were given equal consideration.

MD016–2 **Waste Management**

As described in Sections 2.18.3 and 4.28.2.8, additional spent fuel would be produced by using MOX fuel instead of LEU fuel in domestic, commercial reactors. Spent fuel management at the proposed reactor sites is not expected to change dramatically due to the substitution of MOX assemblies for some of the LEU assemblies. Likewise, the additional spent fuel would be a very small fraction of the total that would be managed at the potential geologic repository. Also, if the MOX approach is selected in the ROD for this SPD EIS, plutonium disposition is proposed to occur in three domestic, commercial nuclear reactors. Commercial nuclear reactors that were not selected would see no changes to their current operations.

LEWIS, MARVIN
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Look, this is insane to think you are getting my comment, my comment. Lord help us! That's a hell of a comment. Of course, I understand that the disposing of plutonium is now up to 50 metric tons! Why they call 50 metric I don't know. 50 metric tons is pretty close to 50 long tons. And this is an insane amount and it sure is insane to put it in civilian reactors, commercial reactors. Any terrorist group can get a hold of it they don't have to make it into a bomb. Plutonium is a terrorist weapon just by its very existence. Commercial reactors don't have the kind of where with all to protect something like that. And I'm not even sure the U.S. Government has something to protect, the where with all to protect it. This is very insane. God help us. Respectfully submitted, Marvin Lewis. 1

PD002

PD002–1 **Nonproliferation**

DOE acknowledges the commentor's opposition to the MOX approach to surplus plutonium disposition based on concerns regarding theft and diversion. In order to address security against terrorist-related incidents, all intersite shipments of plutonium for the surplus plutonium disposition program would be made using DOE's SST/SGT system. This involves having couriers that are armed Federal officers, an armored tractor to protect the crew from attack, and specially designed escort vehicles containing advanced communications and additional couriers. Further, the DOE disposition facilities proposed in this SPD EIS are all at locations where plutonium would have the levels of protection and control required by applicable DOE safeguards and security directives. Safeguards and security programs would be integrated programs of physical protection, information security, nuclear material control and accountability, and personnel assurance. Security for the facilities would be implemented commensurate with the usability of the material in a nuclear weapon or improvised nuclear device. Physical barriers; access control systems; detection and alarm systems; procedures, including the two-person rule (which requires at least two people to be present when working with special nuclear materials in the facility); and personnel security measures, including security clearance investigations and access authorization levels, would be used to ensure that special nuclear materials stored and processed inside are adequately protected. Closed-circuit television, intrusion detection, motion detection, and other automated materials monitoring methods would be employed. Furthermore, the physical protection, safeguards, and security for the MOX facility and domestic, commercial reactors would be in compliance with NRC regulations.

WOMEN'S INTERNATIONAL LEAGUE FOR PEACE AND FREEDOM
PATRICIA T. BIRNIE
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1998-008457 July 15 A 9:49

Women's International League for Peace and Freedom
United States Section
1213 Race Street, Philadelphia, PA 19107-1691
(215) 563-7110 • Fax (215) 563-5527 • E-mail: wilpfnatl@igc.apc.org

July 11, 1998

President Bill Clinton
The White House
Washington, D.C. 20500

cc Federico Peña, Secretary DOE

Re: Oppose MOX option for surplus plutonium disposition from dismantled nuclear weapons

Dear President Clinton:

After studying the DOE's proposed options for surplus plutonium disposition for plutonium from dismantled nuclear weapons, we are convinced it would be a serious mistake to go forward with the MOX (Mixed Oxide fuel for commercial reactors) option.

Our government's official policy correctly has been to oppose nuclear bomb proliferation from the beginning. The MOX option would make access to plutonium much easier for those wanting to make bombs. 1

The government should process the surplus plutonium in a way that: 1. provides the fewest opportunities for theft or diversion by those determined to build nuclear weapons; 2. minimizes the handling and transportation of this deadly material; 3. accomplishes the disposition in the quickest manner; and 4. generates the least additional radioactive waste. MOX does not meet any of these four criteria; only direct immobilization does.

The bonus is that immobilization would also be cheaper, and also make it less likely that our country would embark on a plutonium economy.

An additional factor hidden in the debate over MOX vs immobilization is the necessary additional and substantial government subsidies to private utilities, required to maintain those reactors to be operable during the 30 years' time required to dispose of the surplus plutonium (plus to keep them going the 7 or 8 years prior to when MOX fuel could be ready). All U.S. reactors are aging and needing serious repairs at this date. No reactor has ever achieved its 40 year license period, let alone operate for the longer time MOX use would require. 2

We believe the commercial nuclear industry is at a critical juncture. Utility deregulation now shows that expensive nuclear generation is no longer competitive. We pray that safety systems are not compromised in the present cost-

WAD08

WAD08–1 **MOX Approach**

DOE acknowledges the commentor's opposition to the MOX approach and support of the immobilization approach. The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner. Converting the surplus plutonium into MOX fuel and using it in domestic, commercial reactors and immobilizing the plutonium are effective ways to accomplish this.

Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again. Both approaches would require the handling and transportation of the surplus plutonium. Transportation of special nuclear materials would use DOE's SST/SGT system. Since the establishment of the DOE Transportation Safeguards Division in 1975, the SST/SGT system has transported DOE-owned cargo over more than 151 million km (94 million mi) with no accidents causing a fatality or release of radioactive material.

Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program. For reactor irradiation, the NRC license would authorize only the participating reactors to use MOX fuel fabricated from surplus plutonium, and the irradiation would be a once-through cycle with no reprocessing.

As described in Sections 2.18.3 and 4.28.2.8, additional spent fuel would be produced by using MOX fuel instead of LEU fuel in domestic, commercial

reactors. Spent fuel management at the proposed reactor sites is not expected to change dramatically due to the substitution of MOX assemblies for some of the LEU assemblies. Likewise, the additional spent fuel would be a very small fraction of the total that would be managed at the potential geologic repository.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at http://www.doe-md.com and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington. D.C.

WAD08–2 **MOX Approach**

Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors.

Qualification criteria used to select the domestic, commercial reactors stipulates that the reactors must be able to complete the surplus plutonium disposition program within their operational life as dictated by their licenses. Section 4.28 was revised to discuss the potential environmental impacts of operating Catawba, McGuire, and North Anna, the reactors that would use the MOX fuel.

WOMEN'S INTERNATIONAL LEAGUE FOR PEACE AND FREEDOM
PATRICIA T. BIRNIE
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cutting initiatives of nuclear utilities. We believe nuclear power should be allowed a respectful closure now, without providing huge public monies to prop it up for utilizing the surplus plutonium disposition (that should be disposed of in a better way, anyway). 2

We are worried that the technology proposed by the MOX-consortium-hopefuls ("Plutonium Oxide Polishing") could result in the resumption of reprocessing, though of course under some euphemistic other name. Our scientists have already tried and rightfully rejected reprocessing. Back in the 1960's reprocessing was shut down because of its great danger, its generation of such huge quantities of radioactive waste, its colossal cost, and proliferation concerns. Nothing has changed. Do not allow reprocessing to be resumed, under any name. 3

We believe the institutional pressures exist that would use MOX as the bridge to the plutonium economy, long envisioned by nuclear promoters. A plutonium economy would provide a field day for proliferation opportunities, and spell doom for our hopes for a healthy environment.

We urge your strong opposition to wasting any further public monies on a technology (MOX) that has as many pitfalls, and which has far more negatives than the immobilization option. Oppose MOX before it gets started.

Thank you for your serious consideration. Please address any correspondence to my address below.

Sincerely,

Patricia Birnie

Patricia T. Birnie, Chair
WILPF Environment Committee
5349 W. Bar X Street
Tucson, AZ 85713

cc: Secretary of Energy
Chairman of the Nuclear Regulatory Commission

Enclosure: Lead Editorial of 6-27-98 LA Times

WAD08

WAD08–3 **DOE Policy**

U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The use of U.S. surplus plutonium in existing domestic, commercial reactors does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). The proposed use of MOX fuel is consistent with the U.S. nonproliferation policy and would ensure that plutonium which was produced for nuclear weapons and subsequently declared excess to national security needs is never again used for nuclear weapons.

WOMEN'S INTERNATIONAL LEAGUE FOR PEACE AND FREEDOM
PATRICIA T. BIRNIE

LOS ANGELES TIMES SATURDAY, JUNE 27, 1998

LOS ANGELES TIMES EDITORIALS

Keep Rein on Plutonium

U.S. must not let a market develop for this substance

One of the knotty little problems that U.N. Ambassador Bill Richardson will inherit when he becomes secretary of Energy is what to do with some 50 tons of surplus plutonium, the hottest nuclear fuel around, enough to fashion about 10,000 bombs.

Assuming he is confirmed by the Senate, Richardson needs to reassess plans for disposing of this stuff. The nuclear tests in India and Pakistan are fresh in mind, and an energy chief should judge those alarming programs against this nation's long-held opposition to nuclear proliferation.

It's true that Washington's nonproliferation policy did not prevent India and Pakistan from developing their own bombs. But if the United States is to officially preach nuclear nonproliferation, it ought to practice that policy in the handling of its own bomb-making materials.

Bill Richardson's prospective problem: 50 tons of plutonium.

Back in 1996, a special panel of the National Academy of Sciences recommended a two-track approach for disposing of plutonium that was stockpiled during the Cold War. Plutonium oxide would be mixed with uranium oxide to create a fuel known as MOX for sale as fuel to commercial utility companies operating nuclear power plants.

In accepting the plan, former Energy Secretary Hazel O'Leary said that fuel burned in commercial reactors would not be reprocessed to recover plutonium, as is done in some countries. But it could be, and that was enough for a number of scientists to become alarmed over the potential for reprocessing the fuel and creating the infrastructure for a "plutonium economy" in the United States.

Is that time coming? The Energy Department is seeking $28 million in its fiscal 1999 budget to begin work on a MOX factory at its Savannah River plant. The preferable method of disposal is to combine plutonium with highly enriched uranium waste and melt the mix into glass or a ceramic material at extremely high temperatures, a process known as vitrification. The fused material then could be safely stored in sealed canisters until a nuclear depository such as that proposed at Yucca Mountain, Nev., is in operation.

The American strategy is to get the Russians to dispose of their plutonium too. The Russians want both sides to use the MOX process, arguing that it offers the greatest assurance that none of the plutonium will be resurrected to make bombs in some future crisis. But can we count on them? The State Department sharply criticized Moscow earlier this week for consummating the sale of two nuclear reactors to India for $3 billion.

Washington argued that the sale sends the wrong message—continued cooperation with India in nuclear economics—at a time when U.S. policy is to punish the Indians by restricting such deals. Critics of the Energy Department's plutonium disposal plan use the very same argument against this country: that it ill-behooves us to pursue nonproliferation against would-be nuclear nations while engaging in a program that might ultimately result in more plutonium being on the market.

The real problem may be that there is no way of putting the genie back in the bottle, or of ridding the Earth of plutonium. Indeed, if Europe, Japan and Russia are going to use plutonium for cheap reactor fuel—as it appears—shouldn't we? No. To do so would undermine America's moral policy against nuclear proliferation. Perhaps the first thing Richardson should do at the Department of Energy is to reaffirm that policy.

WAD08